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Crop Varieties and Seed Outlook for 1964

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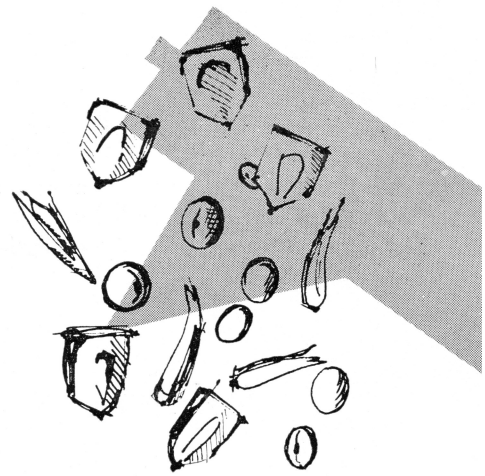

Supplies of all small seeded legumes greater than 1963 consumption; alfalfa supply greatest since 1960 but increase is mostly in common varieties. Some new, some old names show up on 1964 crop variety lists.

by H. E. Thompson

FORAGE CROP seed consumption was lower in 1963 than in any of the previous 5 years. Reasons for the reduction in sales of forage crop seed probably include increased acreage of row crops, reduction in small grain acreage, limited supply of certain varieties and generally higher prices for seed.

For 1964, the supply of timothy, orchardgrass and bromegrass is less than that planted in 1963. *The supply of all small seeded legumes exceeds 1963 consumption.*

While the supply of alfalfa seed is the greatest since 1960, some varieties still could be in short supply. Increased production in 1963 was largely in the Great Plains states and is largely common alfalfa.

Supplies of certified oat seed will be slightly higher than a year ago. There should be about 75 percent more certified soybean seed available than a year ago. Despite the large increase in production of certified soybean seed, there still won't be enough available to plant the acreage that should be planted to certified soybean seed this year.

Excellent yields of good quality seed are being reported by hybrid corn companies. So adequate supplies of your favorite corn hybrid should be available this spring. Prices of seed for planting in 1964 will vary both up and down when compared with a year ago. The prices of corn and oat seeds will be the same to up slightly.

Soybean seed prices will be higher, since seed prices always reflect market prices. Prices of new varieties of oats and soybeans will command premiums as they always do — whether or not they are better than existing varieties.

Alfalfa seed prices will be down $10-$20 per hundred pounds; sweet clover will be down $3-$5; and red clover, alsike clover and Ladino clover will be about the same as a year ago. Tall fescue will be down $5-$7, while bromegrass will be up $8-$10 and orchardgrass and timothy will be up $8-$12 per hundred pounds. The price of sudangrass seed will be about the same as a year ago.

Supply of most seed, except the grasses, is good. However, specific varieties may be in short supply. You may want to reserve your supply of particular hybrids or varieties by ordering early.

Corn

Corn yields per acre in Iowa reached all-time highs in 1961, 1962 and 1963. Advances in production techniques and more general use of improved practices plus good weather made this possible. Today's hybrids have the yield potential to take advantage of the weather and advances in technology.

More growers are fitting their hybrids to their specific farming operations, harvesting equipment and storage facilities. To do this job: Plant early, midseason and full-season hybrids — with the early hybrid planted first. Plant about 25 percent of the acreage to early corn, 50 percent to midseason and 25 percent to full-season corn. This system spreads the workload at harvest time and allows time for fall plowing of land that should be plowed then. It also reduces picker losses since most corn can be picked at the most favorable moisture content. Field losses increase rapidly as moisture drops below 20 percent.

Plenty of hybrids are available to meet your needs. Not all salesmen, however, will understand your specific problems. The annual Iowa Corn Yield Test bulletin can help you in choosing a variety to meet your needs. This publication will be available in late February from county extension offices.

Grain Sorghums

The acreage of grain sorghum reached a high of 300,000 acres in 1957 and declined to about 10,000 acres in 1963. State average yields have moved up from 45 bushels per acre in 1945 to 60 bushels in 1963.

Current yield and production research brings out the following points:

When corn yields average more than 75 bushels, corn usually outyields grain sorghum.

When conditions are unfavorable for corn — such as especially dry weather or late-season planting — grain sorghum is highly competitive.

Grain sorghum is more likely to compete successfully with corn in western and southern Iowa than in other parts of the state.

Before planting grain sorghum, be sure that harvesting, drying and storage facilities are available and suitable.

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Hybrids now available yield 20-25 percent more than the varieties used in 1957. A detailed report of the relative performance of sorghum varieties and hybrids is available in your county extension office.

Soybeans

In choosing a soybean variety, select one that uses the full growing season but reaches maturity before the average date of killing frost. The varieties suggested by areas will do this when planted at the normal dates.

Soybeans often are used as a replacement crop. If you face such a need, you can choose from a wide selection of varieties which may be planted later than normal and still mature in the remaining frost-free period. Yields from late planting decrease about 1 percent for each day after May 31. Write to the Department of Agronomy at Iowa State University for special suggestions.

Northern Iowa:

Blackhawk — About 1 week earlier in maturity than Hawkeye, medium-tall, lodging resistant and high in yield.

Chippewa — A high-yielding variety that matures about 5 days earlier than Blackhawk but compares favorably with it in all other characteristics.

Harosoy — A full-season variety for northern Iowa. Higher in yield than Chippewa and Blackhawk but lodges more and matures several days later than either; matures about 5 days earlier than Hawkeye.

Hawkeye — For southern and western counties of northern Iowa. High-yielding, tall and lodging resistant.

North-Central Iowa:

Ford — It's best adapted in maturity from north-central to south-central Iowa. About 2 days later than Adams but outyields it by nearly 2½ bushels per acre.

Harosoy — See northern Iowa.

Hawkeye — The most widely grown variety in the northern half of the state. It matures about 3 days earlier than Adams.

South-Central Iowa:

Adams — High in yield and oil and good in lodging resistance. About 2 days earlier in maturity than Ford and 10 days earlier than Clark.

Ford — See north-central Iowa.

Hawkeye — See north-central Iowa.

Shelby — Best adapted for maturity in south-central and southern Iowa. Matures 2 days later than Ford and has about the same lodging resistance and height. In the northern area of adaption, Ford outyields Shelby; the reverse is true in the southern area.

Southern Iowa:

Adams, Ford and Shelby — See south-central Iowa.

Clark — A high-yielding variety, about 1 week later in maturity than Ford or Shelby and 2 or 3 bushels higher in yield; stands well.

Clark 63 — Similar to Clark except that it has resistance to Phytophtora Root Rot and bacterial pustule.

Agronomic Characteristics and Crown Rust Reactions of Oat Varieties Eligible for Certification in 1964.

Variety	Yield	Straw	Test Weight	Reaction to crown rust[1] 1	2
Early:					
Bonham	Medium	Medium	Medium	MS	MS
Bonkee	Medium	Medium	Medium	MR	MS
Cherokee	Medium	Medium	Medium	MS	MS
Minhafer	High	Strong	Medium	R	S
Neal	High	Strong	Medium	R	S
Nemaha	Medium	Medium	Medium	MS	MS
Nodaway	Medium	Strong	High	S	S
Putnam 61	Medium	Medium	Medium	R	S
Tonka	Medium	Strong	High	S	S
Midseason:					
Burnett	High	Medium	High	MS	S
Garland	High	Strong	Medium	R	R
Goodfield	Medium	Strong	High	R	S
Newton	Medium	Medium	Medium	MR	MS

[1]R = Resistant; MR = Moderately resistant; MS = Moderately susceptible; S = Susceptible. First column gives reaction to older, but still prevalent, crown rust races; second column gives reaction to the most common of the newer important races.

Small Grains

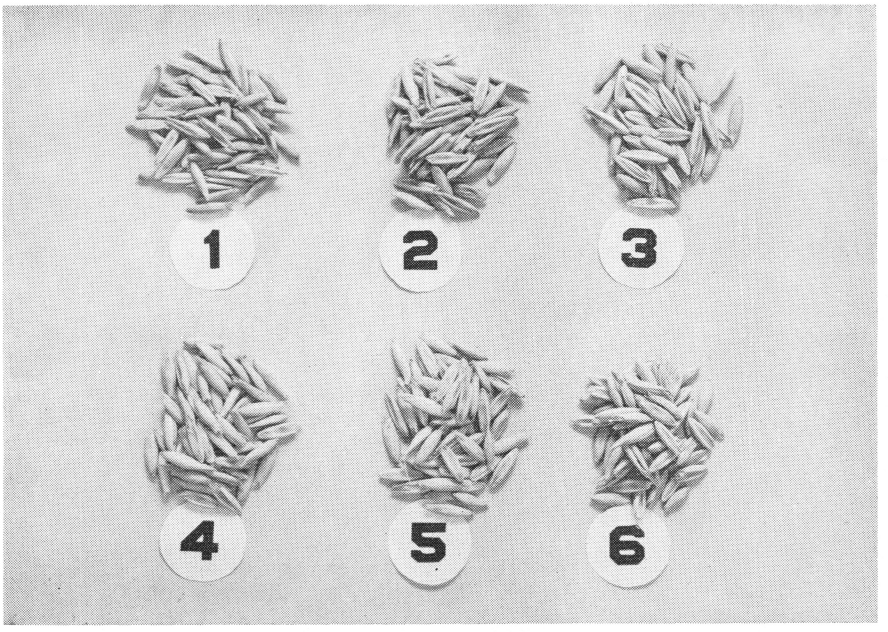
Oat Varieties

The performance of the oat varieties that will be eligible for certification in 1964 is summarized in the table. No disease was serious enough to cause significant yield losses in oats in 1963. While crown rust was prevalent in some areas, especially near buckthorn hedges, the yield reduction caused by this disease was localized and low for the state as a whole. Since stem and crown rust have not caused severe damage to oat yields since 1957, there may be a tendency to overlook the importance of rust resistance for successful oat production in Iowa. However, records show that crown rust seriously reduces oat yields in Iowa in 1 of every 3 years. (See also the "Plant Disease Outlook for 1964" in this issue.)

Barley Varieties

Most barley produced in Iowa is used as feed for livestock. Some varieties may bring premium prices as malting barley if care is taken in production and harvesting. The three varieties listed below have been satisfactory, based on yield trial summaries.

Liberty (feed type) — High-yielding plump kerneled, smooth awned variety. Moderately stiff straw and medium in maturity. Resistant to stem rust and mildew; susceptible to leaf rust, loose smut, spot blotch and scab.



Among the oat varieties eligible for certification are 1—Goodfield, 2—Neal, 3—Burnett, 4—Cherokee, 5—Nodaway and 6—Bonkee.

Plains (feed type) — Has large white grain, high in yield, smooth awned, early maturing with short, stiff straw. Resistant to stem rust and drouth, but susceptible to leaf rust, loose smut, spot blotch and scab.

Traill (malting type) — Similar to Kindred, but much stiffer straw. A high-yielding, rough awned, medium late maturing variety. Resistant to stem rust, but susceptible to leaf rust, mildew, loose smut, spot blotch and scab.

Flax Varieties

Flax, like barley, is grown largely in northwestern Iowa. It's a good companion crop for forage seedings unless weeds are a serious problem. The following varieties have given good performance in yield trials:

Bolley — Moderate yielding and medium early maturing. Preferred for late seeding. Resistant to rust and wilt but susceptible to pasmo.

Redwood — High-yielding and midseason in maturity. Resistant to rust and wilt but susceptible to pasmo.

Wheat Varieties

Winter wheat generally outyields spring varieties and has given the most consistent performance in southern and southwestern sections and along the Missouri River bottomlands.

Winter Wheat Varieties:

Omaha — Moderately high-yielding, bearded, early maturing, short stiff straw. Similar to Pawnee but has better milling and baking qualities, higher test weight, superior winterhardiness and is resistant to soil-borne mosaic.

Ottawa — High-yielding, bearded, brown chaff, medium-early maturing. Has moderately short and very stiff straw. About like Pawnee in winterhardiness. Resistant to soil-borne mosaic, Hessian fly and leaf and stem rust.

Pawnee — Moderately high-yielding, bearded, early maturing, stiff strawed, short. Somewhat lacking in winterhardiness; best adapted for southern areas of the state.

Spring Sown Varieties:

Lathrop, Pembina and Selkirk — Lathrop is nearly identical with Henry, except that it is resistant to Hessian fly. It is a high yielder but produces a poor quality flour and is recommended only for feed. Pembina is slightly earlier and more resistant to stem rust than Selkirk. Selkirk has moderate resistance to race 15-B of stem rust and yields well.

Forages

Great strides have been made in the development and use of improved forage crop varieties. Seed production of these varieties has become specialized — often far removed from the areas where the crop is used. It isn't possible to identify varieties by seed characteristics. We urge that you plant certified seed of these new varieties to have greater assurance of varietal purity.

Alfalfa Varieties:

Performance trials have shown the importance of resistance to bacterial wilt in all stands to be left for more than one crop year. Wilt spreads most rapidly in fields where subsoil moisture is high, especially on flat and slightly depressed areas.

Vernal — Outstanding because of its consistant high yields of quality forage. Has a high level of winterhardiness and wilt resistance.

525 — selected from Vernal for more rapid regrowth and better seed production. Trials indicate forage yields similar to Vernal.

Progress — Selected for high seed production from Vernal. Has lower percentage of plants with yellow flowers than Vernal; forage yields similar to Vernal.

Cayuga — Synthetic variety developed at Cornell University. In preliminary trials has given excellent performance, has shown good winterhardiness, wilt resistance and excellent regrowth characteristics.

WL202 — Synthetic variety tracing to Vernal and Narragansett origin. Preliminary trials have indicated good performance in Iowa.

Warrior — A modified Du Puits type with greater winterhardiness and wilt resistance. Has shown good performance in preliminary trials.

Ranger — Wilt resistant, winterhardy variety, not equal to Vernal in forage yields.

Cody — Synthetic variety developed from Buffalo for resistance to spotted aphid. Similar to Buffalo in performance where aphid is not serious.

Buffalo — Resistant to wilt and excellent forage producer in southern half of Iowa.

Other varieties — For short term stands

where bacterial wilt is not a factor, Alfa, FD-100 and Du Puits have given excellent performance. Wilt may reduce the stand as early as the second crop year, an important consideration in the use of these varieties.

Red Clover Varieties

Though the present acreage planted to red clover is lower than for alfalfa, many farm operators favor red clover, especially for short rotations in eastern Iowa.

Dollard — Resistant to northern anthracnose and is best adapted for use in northern Iowa.

Kenland — Resistant to southern anthracnose and has shown superior performance in yield of forage.

Lakeland — Resistant to northern anthracnose and downy mildew; performance is similar to Kenland and Dollard.

Pennscott — A variety of high productivity, approximately equal to Kenland under Iowa conditions.

Common — Seed of common strains grown for a number of generations in Iowa. Seed produced in other midwestern states and similar latitudes in Canada also is considered satisfactory.

Sweetclover:

For many years sweetclover has been a leading crop for legume green manure in seedings with oats and other grains. Watch for weevil damage; weevil-resistant varieties are not available.

Madrid — Biennial yellow. Produces excellent yields of nitrogen and organic matter in the first year growth.

Ladino Clover:

Ladino clover is a larger, more productive type of white clover. It's best suited for rotation pastures and meadow mixtures, especially hog and poultry pastures. It doesn't produce well, however, where moisture is limiting.

Merit — Synthetic variety developed in Iowa from Oregon and northern California certified ladino stocks. Superior in winterhardiness, drouth tolerance and forage yield. Seed supply plentiful.

Birdsfoot Trefoil:

Birdsfoot trefoil is a deep-rooted winterhardy perennial legume especially useful in permanent and long-rotation pastures. Seedling establishment often is slow, compared with alfalfa or red clover. It's adapted to a wide range of soil conditions but isn't particularly drouth resistant. Birdsfoot trefoil grows well in mixtures with Kentucky bluegrass and orchardgrass.

Empire — Semi-prostrate in growth habit and most winterhardy of all varieties now available. It is the only variety that will survive continuous grazing.

Bromegrass:

Bromegrass is a widely adapted, hardy grass for good soils. It does best when grown with a legume, especially alfalfa. But stands short of legumes can be stepped up considerably in seed and forage production by applying 60-80 pounds of nitrogen per acre.

Adapted varieties — all similar in performance — are:

Achenbach, Fischer and Lincoln — Widely grown southern types; tall, leafy and good seed producers under proper management.

Southland — A new variety similar in performance to the southern types. Has good spring recovery.

Orchardgrass:

Orchardgrass is an adapted, vigorous-growing grass which is easy to establish. It's best suited for pasture, in mixture with a legume, because of rapid recovery after grazing or mowing. It persists under a wide range of conditions and, with good management, is high in palatability and nutritive value.

Potomac — A mid-early variety similar to common orchardgrass in performance and winterhardiness; good in aftermath recovery and improved in resistance to leaf diseases.

Sterling — A new mid-early variety; superior in forage and seed production and in winterhardiness, drouth tolerance and stand establishment. Seed supply is limited.

Common — Seed from mid-Atlantic or southern Corn Belt states; good in general performance and winterhardiness; mid-early in heading.

Sudangrass:

Because of its rapid, vigorous growth in hot, dry weather, sudangrass does well for summer pastures. It also has value as an emergency pasture or hay crop in adverse seasons.

Greenleaf — Late, leafy and disease resistant, with juicy stems and sweet forage; satisfactory in yield.

Piper — Early, rapid in growth and recovery after grazing or cutting; disease resistant and high in yield; low in prussic acid content.

Hybrid varieties of sudangrass are available. Most of these are crosses between sudangrass and sorghum. Some of these hybrids have excellent yields. But preliminary tests show that they vary greatly in prussic acid content.

Forage sorghums:

Several new forage sorghum hybrids are available. Some are early. Others are as late or later than Atlas. Forage hybrids may or may not be superior in yield, and some are very susceptible to lodging. Use care in selecting hybrids of suitable maturity. Combine-type grain sorghums can be used for forage, but they usually yield only 50-70 percent as much as taller forage types.

Atlas — High-yielding, tall, lodging resistant, late variety for early planting (late May) in central and southern Iowa.

RS301 — A hybrid, leafy, outstanding in yield and lodging resistance and about 1 week earlier than Atlas. RS301 is a male sterile hybrid and produces no seed. All of its nutrients, therefore, are in the stalks and leaves. If a seed crop is desired, mix a small amount (10-20 percent) of seed of a variety of similar maturity with it at planting time to provide pollination and seed set.

Waconia Orange — High-yielding, lodging resistant, highly palatable, midseason variety. Suitable for early planting (late May) in northern Iowa and later planting in central and southern Iowa.

More detailed information on many of the crop varieties listed in this article are available from your county extension director.